SARI

ANALISIS SIKUEN STRATIGRAFI DAN LINGKUNGAN PENGENDAPAN FORMASI WANGARLU, LAUT TIMOR

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Laut Timor adalah perpanjangan Samudra Hindia antara pulau Timor, yang saat ini terbagi antara Indonesia dan Timor Leste, serta Teritorial Utara Australia. Di timur, berbatasan dengan Laut Arafura, yang secara teknis merupakan perpanjangan dari Samudera Pasifik. Tempat penelitian ini berada di Cekungan Bonaparte Utara, salah satu cekungan di Indonesia Timur yang menjanjikan untuk mengandung hidrokarbon. Penggunaan konsep tatanan stratigrafi dan fasies seismik untuk menyelesaikan permasalahan belum pernah diterapkan sebelumnya dalam bidang ini Analisis sikuen stratigrafi, fasies, dan elektrofasies untuk mengetahui lingkungan pengendapan daerah penelitian dan memberikan gambaran sebaran reservoir untuk memandu pengembangan lapangan selanjutnya.Fokus utama penelitian pada pengendapan Formasi Wangarlu. Berdasarkan hasil analisis analisis sikuen stratigrafi yang telah dilakukan dapat ditarik kesimpulan bahwa area penelitian diendapkan pada masa *transgressive system track* dengan peristiwa terjadinya kenaikan muka air laut kemudian saat mencapai kenaikan muka air laut tertinggi, muka air laut mengalami penurunan dan diendapkan *High System Track.* Pada Formasi Wangarlu terendapkan di daerah *marine* dengan lingkungan Batimetri *Bathyal atas – Neritic luar.*

Kata Kunci: *TST, HST, Sea Level,* Lingkungan Pengendapan

ABSTRACT

STRATIGRAPHIC SEQUENCE ANALYSIS AND DEPOSITIONAL ENVIRONMENT OF THE WANGARLU FORMATION, TIMOR SEA

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The Timor Sea is an extension of the Indian Ocean between the island of Timor, currently divided between Indonesia and Timor Leste, and Australia's Northern Territory. To the east, it borders the Arafura Sea, which is technically an extension of the Pacific Ocean. The location of this research is in the North Bonaparte Basin, one of the basins in Eastern Indonesia that is promising for containing hydrocarbons. The use of the concepts of stratigraphic order and seismic facies to solve problems has never been applied before in this field. Analysis of stratigraphic, facies and electrofacies sequences to determine the depositional environment of the research area and provide an overview of the reservoir distribution to guide further field development. The main focus of the research is on Wangarlu Formation depositions. Based on the results of the stratigraphic sequence analysis that has been carried out, it can be concluded that the research area was deposited during the transgressive system track with the occurrence of sea level rise, then when the sea level reached the highest rise, the sea water level decreased and the High System Track was deposited. Wangarlu Formation was deposited in a marine area with an upper Bathyal – outer Neritic bathymetric environment.

Keywords: TST, HST, Sea Level, Depositional Environment